Interaction of two solitary waves in a ferromagnet

Titre	Interaction of two solitary waves in a ferromagnet
Type de publication	Article de revue
Auteur	Leblond, Hervé [1]
Editeur	Institute of Physics
Type	Article scientifique dans une revue à comité de lecture
Année	1995
Langue	Anglais
Date	1995
Numéro	13
Pagination	3763-3784
Volume	28
Titre de la revue	Journal of Physics A: Mathematical and General
ISSN	0305-4470
Résumé en anglais	A type of solitary wave in a ferromagnet is found by a multiscale expansion method; it obeys the completely integrable Korteweg-de Vries equation. The interaction between a wave of this propagation mode and another known mode that also allows soliton propagation is studied. The equations describing the interaction are derived using a multiscale expansion method and then reduced to an integral form, and solved explicitly for particular initial data for which one of the waves can be considered as a soliton. A phase shift of this soliton appears. Transmission and reflexion coefficients are computed for the second wave.
URL de la notice	http://okina.univ-angers.fr/publications/ua9062 [2]
DOI	10.1088/0305-4470/28/13/022 [3]
Lien vers le document	http://iopscience.iop.org/0305-4470/28/13/022/ [4]
Titre abrégé	J. Phys. A: Math. Gen.

Liens

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[2] http://okina.univ-angers.fr/publications/ua9062
[3] http://dx.doi.org/10.1088/0305-4470/28/13/022
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